

**REMARKS**

Claims 1-38 and 61 are pending. Claims 1-38 and 61 have been rejected. Claims 1, 33, 37, 38 and 61 have been amended.

Support for the amendments to claims 1, 33, 37, 38 and 61 can be found in the specification at paragraph 0005, lines 1-4, paragraph 0007, and paragraph 0014 among other places.

No new matter has been added.

**Rejection under 35 U.S.C. §102(b) and alternatively under §103(a)**

Claims 1-29, 33-35 and 38 were rejected under 35 U.S.C. §102(b) as being anticipated by Rosenberg et al. (U.S. 4,538,618) or in the alternative under §103(a) as being unpatentable over Rosenberg et al. With respect to claim 1, the Examiner states that Rosenberg et al. does not disclose that it is capable of determining the degree of systemic perfusion. The Examiner further states that “[t]he fact that applicant has recited what the data is useful for does not limit an apparatus claim.” *See* Final Office Action, pg. 5.

Applicants believe that the previous limitation in claim 1 for “wherein a measured blood flow in the adjacent tissue that is substantially lower than a normal blood flow and a PCO<sub>2</sub> measurement that is substantially higher than a normal PCO<sub>2</sub> measurement is indicative of the degree of systemic perfusion of the patient” patently distinguishes Applicants’ invention over Rosenberg et al. Notwithstanding, Applicants have amended claim 1 to recite “said indicating means indicating the degree of systemic perfusion of the patient when the measured blood flow in the adjacent tissue is substantially lower than a normal measured blood flow and the measured PCO<sub>2</sub> is substantially higher than a normal measured PCO<sub>2</sub>.” Based on the foregoing, Applicants respectfully submit that claim 1 is now allowable over the art of record.

Similar amendments have been made to claims 33 and 38 and it is believed that these claims also distinguish over Rosenberg et al. With regard to dependent claims 2-29 and 34-35, because the independent claims from which they depend patentably distinguish over the art of record, so too do the dependent claims. Reconsideration and allowance is respectfully requested.

**Rejections under 35 U.S.C. §103(a)**

The Examiner rejected claims 30 and 61 under 35 U.S.C. §103(a) as being unpatentable over Rosenberg et al. in view of Riccitelli et al (U.S. 5,166,990). The Examiner states that Riccitelli et al. further teach that it is known to monitor pH and PCO<sub>2</sub> in the same intravascular measuring device and as such it would have been obvious to modify Rosenberg et al. to include a pH sensor. Neither Rosenberg et al. nor Riccitelli et al., alone or in combination, teach or suggest an “indicating means indicating the degree of systemic perfusion of the patient when the measured blood flow in the adjacent tissue is substantially lower than a normal measured blood flow and a measured PCO<sub>2</sub> is substantially higher than a normal measured PCO<sub>2</sub>,” as claimed by Applicants. Based on the foregoing, Applicants respectfully assert that independent claim 61 is allowable over the art of record. Because claim 30 depends from an allowable base claim, Applicants assert that claim 30 is now allowable. Reconsideration is respectfully requested.

The Examiner further rejected claims 31 and 32 under 35 U.S.C. §103(a) as being unpatentable over Rosenberg et al. in view of Boggett. The Examiner states that Boggett et al. further teaches that in a microvascular monitoring device like that of Rosenberg et al., it is known to monitor the rate of change of blood flow and as such, it would have been obvious to modify Rosenberg et al. to include a rate of change of flow determining device. Applicants have amended the claims to distinguish over Rosenberg et al. in view of Boggett. Neither Rosenberg et al. nor Boggett et al., alone or in combination, teach or suggest an “indicating means indicating the degree of systemic perfusion of the patient when the measured blood flow in the adjacent tissue is substantially lower than a normal measured blood flow and a measured PCO<sub>2</sub> is substantially higher than a normal measured PCO<sub>2</sub>,” as claimed by Applicants.

Based on the foregoing and because claims 31 and 32 depend from now allowable base claim 1, Applicants respectfully request reconsideration and allowance of these claims.

The Examiner also rejected claims 33-37 as being unpatentable over Millar (U.S. 4,966,148) stating that Millar shows a device including a blood flow sensor and a sensor holder

that is capable of holding the device in place. With regard to claim 37, the Examiner states that Millar teaches a device with a flow sensor and a pH sensor.

Millar does not teach or suggest “an indicating means operably connected to the sensor means . . . said indicating means indicating the degree of systemic perfusion of the patient when the measured blood flow in the adjacent tissue is substantially lower than a normal measured blood flow” as now recited in claim 33. Based on the amendment to claim 33, Applicants respectfully assert that claim 33 is now allowable over Millar. Because claims 32-36 depend from an allowable base claim, Applicants assert that these claims are also allowable. Reconsideration and allowance are respectfully requested.

Neither does Millar teach or suggest “an indicating means operably connected to the sensor means, for indicating the measured blood flow and the measured pH, said indicating means indicating the degree of systemic perfusion of the patient when the measured blood flow in the adjacent tissue is substantially lower than a normal measured blood flow and the measured pH is substantially lower than a normal measured pH” as now recited by claim 37. Based on the foregoing, independent claim 37 is now allowable over Millar. Applicant’s respectfully request reconsideration and allowance of claim 37.

**CONCLUSION**

All rejections being addressed, it is believed that the claims are now in condition for allowance. Reconsideration and allowance are respectfully requested. If the Examiner believes that a teleconference would be of value in expediting the allowance of the pending claims, the undersigned can be reached at the telephone number listed below. It is believed that no additional fees are required. If for some reason it is determined that additional fees are required, the Commissioner is hereby authorized to charge any fees or overpayment to Deposit Account No. 50-1901 (Docket 11242-320).

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